

## **Title**

Examining the associations between experiences of digital difficulties, worry about the future of being unable to keep up with digital evolutions, and feelings of general stress

## **Abstract for the Media Psychology division**

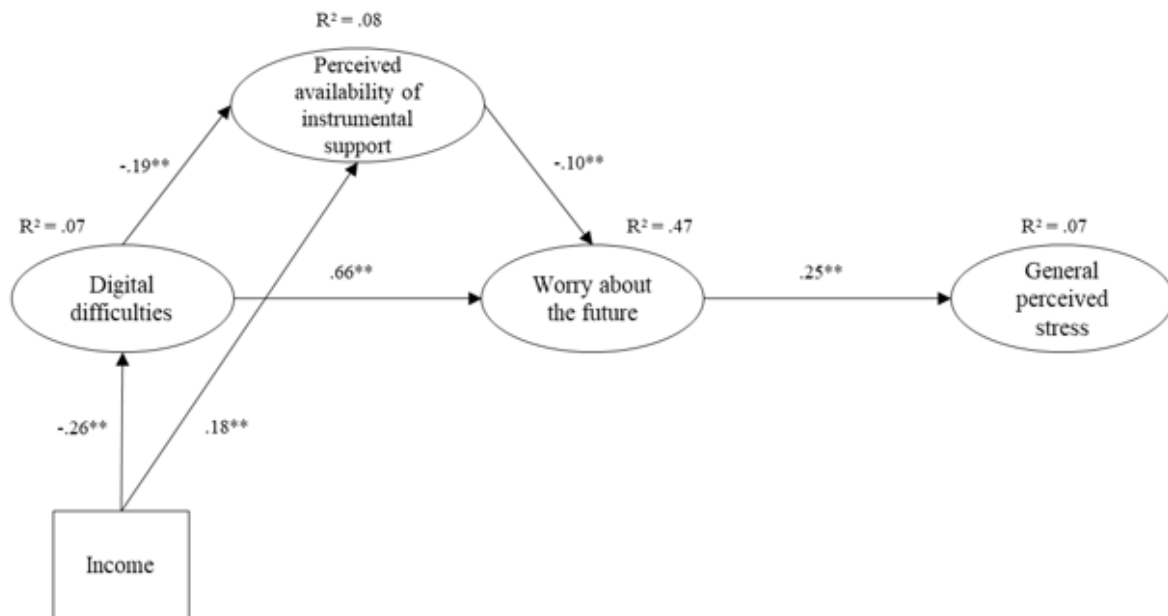
Until now, little research has focused on experiences of digital difficulties and its consequences. The present study defines digital difficulties as frequently encountering problems or inconveniences in using a smartphone or computer, such as not knowing how to use a certain program or website for the purpose you want, or not knowing how to adapt settings. Following the process model by Tallis and Eysenck (1994), we hypothesize that experiences of digital difficulties is positively associated with worries about the future of being unable to keep up with digital evolutions (H1). According to this model, worry is an abstract, anticipatory cognitive process that is initiated when the individual experiences a threat concerning possible future events (Stöber & Joormann, 2001; Tallis & Eysenck, 1994). Worry especially occurs when the threat is imminent or likely to happen, and it maintains if there is elevated evidence based on individuals' experiences (Tallis & Eysenck, 1994). As the use of a smartphone or computer is being normalized in both public and administrative services, and in the work place (Schou & Pors, 2019), experiences of digital difficulties may be considered by individuals as a threat to fulfill basic needs related to income, housing and healthcare (Cohen & Wills, 1985). As such, individuals may start to worry about being unable to keep up with digital evolutions in the future based on their current experiences of digital difficulties in using a smartphone or computer.

Second, we hypothesize that worry about the future of being unable to keep up with digital evolutions is positively associated with general perceived stress (H2). Indeed, it has been found, both in early adolescent and adult samples, that worries about problems close to oneself, such

as worries about one's future, are significantly associated with poor mental health in terms of higher levels of anxiety, depression, substance use, stress and lower levels of self-esteem, problem solving ability, and thought suppression (Beck, Stanley, & Zebb, 1995; Boehnke, Schwartz, Stromberg, & Sagiv, 1998; Brown, Teufel, Birch, & Kancherla, 2006; Laugesen, Dugas, & Bukowski, 2003). Third, following the buffering hypothesis of Cohen and Wills (1985), this study hypothesizes that perceived availability of support for digital difficulties partially mediates the association between experiences of digital difficulties and worry about the future (H3). Finally, it is assumed based on the stratification hypothesis, that existing social inequalities are reflected or even reinforced in new inequalities, such as experiences of digital difficulties (van Deursen, Helsper, Eynon, & Van Dijk, 2017; Witte, 2010). Therefore, we hypothesize a negative association between income and experiences of digital difficulties (H4a), and a positive association between income and perceived availability of instrumental support for digital difficulties (H4b).

A structural equation modeling was applied on our study sample, which was representative for the Flemish population of non-student individuals (18-64 years old) with regard to gender, age, employment status, and educational degree. All fit indices revealed an acceptable model fit for the data, and all factor loadings were significant above .76. In line with our expectations, experiences of digital difficulties was significantly related with worries about the future (H1), and the latter was significantly related to general perceived stress (H2). A positive significant partial mediation effect of perceived availability of instrumental support appeared in the association between encountering digital difficulties and worry about the future (H3; indirect effect  $\beta = .02$ ,  $p < .01$ ). Finally, income was significantly associated with digital difficulties (H4a), and with perceived availability of instrumental support for digital difficulties (H4b) (see Figure 1).

**Figure 1** Structural model



*Note:* All direct associations are significant on the  $<.001$ -level.

Based on our findings it seems that individuals who experience digital difficulties are more likely to worry about not being able to keep up with digital evolutions in the future, and individuals who worry more often are more likely to experience higher levels of general stress. Remarkable, the association between digital difficulties and worry about the future is reinforced by individuals' perceived lack of instrumental support, in contrast with the buffering role of instrumental support that we expected. In other words, individuals who experience digital difficulties are more likely to perceive a lack of instrumental support for their difficulties, and this perceived lack also induces that individuals worry more often about being unable to keep up in the future. Finally, individuals with lower income are more prone to experience digital difficulties, and they are less likely to find instrumental support for their digital difficulties.

Implications will be provided with regard to whether public services, administrative services, and employers should pursue a digital by default strategy.

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